

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Docket Number (Optional)

END920020007US

Application Number

10/078020

Applicant(s)

Won K. Choi et al.

Filing Date

Group Art Unit

1775

11016 U.S. PTO
10/078020
02/15/02

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
B3		6,229,248	5/2001	Kusabiraki et al.	310	348	
B3		6,228,322	5/2001	Takeda et al.	420	561	
B3		5,863,493	1/1999	Achari et al.	420	557	
B3		5,405,577	4/1995	Seelig et al.	420	561	
B3		5,393,489	2/1995	Gonya et al.	420	561	
B3		5,352,407	10/1994	Seelig et al.	420	561	
B3		4,778,733	10/1988	Lubrano et al.	428	647	
B3		6,156,132	12/2000	Yamashita et al.	148	400	
B3		6,086,687	7/2000	Oud et al.	148	400	
B3		6,077,477	6/2000	Sakai et al.	420	560	
B3		5,837,191	11/1998	Gickler	420	560	

FOREIGN PATENT DOCUMENTS

REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
B3	131,299	8/1919	GB				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

B3		Moon et al., EXPERIMENTAL AND THERMODYNAMIC ASSESSMENT OF Sn-Ag-Cu SOLDER ALLOYS, Journal of ELECTRONIC MATERIALS, Vol. 29, No. 10, 2000, pages 1122-1136

EXAMINER

John Zimmerman

DATE CONSIDERED

9/17/03

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY DOCKET NO.
END920020007US1

SERIAL NO. 10/078020

Won K. Choi et al.

FILING

GROUP

1775

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
J	5,520,752	5/1996	Lucey, Jr. et al.	148	400	
J	5,833,921	11/1998	Paruchuri et al.	420	589	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

John Zimmerman

DATE CONSIDERED

9/17/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY DOCKET NO.

END920020007US

SERIAL NO.

10/078,020

Choi et al.

FILING

2/15/02

GROUP

1775

APR 08 2002

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,056,189	5/2000	Gao et al.	228	207	
	5,918,795	7/1999	Yamaguchi et al.	228	200	
	5,874,043	2/1999	Sarkhel et al.	420	557	
	5,843,371	12/1998	Yoo et al.	420	562	
	5,733,501	3/1998	Takao et al.	420	562	
	5,730,932	3/1998	Sarkhel et al.	420	562	
	5,658,528	8/1997	Ninomiya et al.	420	562	
	5,655,703	8/1997	Jimarez et al.	228	180.22	
	5,580,520	12/1996	Slattery et al.	420	557	
	5,538,686	7/1996	Chen et al.	420	557	
	5,533,256	7/1996	Call et al.	29	840	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	56017179	2/1981	Japan				
	68124	7/1991	Australia				
	0363740	4/1990	EPO				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Hanson, M., CONSTITUTION OF BINARY ALLOYS, 1958, McGraw-Hill Book Company, 4 pages
	Bath, J. et al., Research Update: LEAD-FREE SOLDER ALTERNATIVES, Vol. 11, No. 5, May 2000, Circuit Assembly, pages 30-40

EXAMINER

John Zimmerman

DATE CONSIDERED

9/17/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE SITUATION

(Use several sheets if necessary)

ATTY DOCKET NO.
END920020007US

SERIAL NO.
10/078,020

Choi et al.

FILING
2/15/02

GROUP
1775

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
B	5,527,628	6/1996	Anderson et al.	428	647	
B	5,439,639	8/1995	Vianco et al.	420	562	
B	5,344,607	9/1994	Gonya et al.	420	562	
B	5,328,660	7/1994	Gonya et al.	420	562	
B	5,256,370	9/1996	Slattery et al.	420	557	
B	5,255,839	10/1993	de Costa Alves et al.	228	180.21	
B	5,229,070	7/1993	Melton et al.	420	557	
B	5,221,038	6/1993	Melton et al.	228	180.2	
B	5,147,084	9/1992	Behun et al.	228	56.3	
B	4,875,617	10/1989	Citowsky	228	123	
B	4,806,309	2/1989	Tulman	420	562	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

B			YOR919950085, Kang et al., FLIP CHIP INTERCONNECTIONS USING LEAD-FREE SOLDERS, 4 pages (no date)

EXAMINER

John Zimmerman

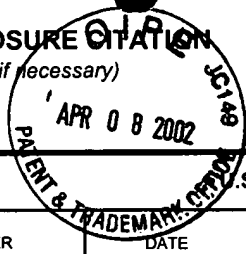
DATE CONSIDERED

4/17/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)



ATTY DOCKET NO.
END920020007US

SERIAL NO.
10/078,020

#3

Choi et al.

FILING
2/15/02

GROUP
1775

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Jg.	4,170,472	10/1979	Olsen et al.	75	175A	
Jg.	3,716,907	2/1973	Anderson	29	470.9	
Jg.	2,105,405	1/1938	Chase	285	106	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

John Zimmerman

DATE CONSIDERED

9/17/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.